DOCUMENTING OPERATIONAL OPEN BURNS

Purpose

This Meteorology and Air Quality Group (MAQ) procedure describes the process to notify the New Mexico Environment Department (NMED) regulators and document an operational open burn event at LANL.

Scope

This procedure applies to the individuals in the Meteorology and Air Quality Group assigned to notify regulators, track, observe, and document operational open burns at LANL.

In this procedure

This procedure addresses the following major topics:

Hazard Control Plan

The hazard evaluation associated with this work is documented in Attachment 1: Initial risk = **low**. Residual risk = **minimal**. Work permits required: none. First authorization review date is one year from group leader signature below; subsequent authorizations are on file in group office.

Signatures

Prepared by: Harold A Martinez Harold Martinez, MAQ	Date: 4-24-03
Approved by: SL (SS) Steve Story, Operating Permit Project Leader	Date: 4-29-03
Approved by: Terry Morgan Terry Morgan, QA Officer	Date: 4/30/03
Approved by: Jean M Dewart Jean Dewart, RRES-MAQ Group Leader	Date: 5/1/03

04/23/03
05/09/03

CONTROLLED DOCUMENT
This copy is uncontrolled if no red stamp is present on printed copies.
Users are responsible for ensuring they work to the latest approved revision.

General information about this procedure

Attachments

This procedure has the following attachments:

Number	Attachment Title	No. of pages
1	Hazard Control Plan	2
2	Open Burn Notification Log	1
3	Open Burn Notification Form	1
4	Open Burn Review and Observation Report	1

History of revision

This table lists the revision history and effective dates of this procedure.

Revision	Date	Description Of Changes
0	5/28/99	New document.
1	7/1/99	Change training method to "read."
2	5/7/03	Add notification requirements for activities at TA-16 flash pad, update names of organizations, and add HCP as attachment.

Who requires training to this procedure?

The following personnel require training before implementing this procedure:

- Title V project leader
- Personnel assigned to track observe, document, and report open burns

Training method

Training to this procedure will be by "**self-study**" (**reading**) and will be documented in accordance with the procedure for training (MAQ-024).

Prerequisites

In addition to training to this procedure, the following training is also required prior to performing this procedure:

- MAQ-011, "Logbook Use and Control"
- Familiarity with the operational open burn permit

General information, continued

Definitions specific to this procedure

None.

References

The following documents are referenced in this procedure:

- MAQ-011, "Logbook Use and Control"
- MAQ-024, "Personnel Training"
- Letter from John Volkerding, NMED, to Scott Miller, MAQ, dated March 18, 2003

Note

Actions specified within this procedure, unless preceded with "should" or "may," are to be considered mandatory guidance (i.e., "shall").

Notification and documentation of open burns

Permitted sources for open burns

The lab conducts two types of "open burns": *prescribed* and *operational*. LANL has four air quality permits with NMED for operational open burns:

- Permit TA-11-OB-2003 (TA-11 ESA)
- Permit TA-16-OB-2003 (TA-16 ESA)
- Permit TA-14-OB-2003 (TA-14 DX)
- Permit TA-36-OB-2003 (TA-36 DX)

Another air quality permit with NMED permits specific prescribed burns. Reporting and documentation requirements for prescribed burns will be specified in the specific current permits and are not addressed in this procedure.

Performing work safely

DO NOT perform work under conditions you consider unsafe. Before beginning work described in this procedure, review safety needs and requirements, identify hazards, and develop hazard mitigation measures. Be aware that facility configurations and hazards may change between visits.

Stormy weather - Reschedule or delay work activities as necessary to avoid areas experiencing severe or dangerous weather.

First notification

Initiation of the open burn process occurs when a call, FAX, or e-mail comes from any of the operations people at the permitted burn areas. Notifications are usually sent to the Title V Project Leader or the group member who keeps the logbook.

Enter information regarding the burn on a line of the appropriate Open Burn Notification Log (Attachment 2) in the Open Burn Logbook and complete the top portion of an Open Burn Review and Observation Report (Attachment 4).

DX-2 (TA-14 and TA-36) or **ESA** (TA-11 and TA-16) should inform MAQ with enough advance notice to allow notification of NMED no less than 24 hours (for normal open burns at TA-11, TA-14 and TA-36) and up to one week (for burns of wet and dry bulk explosives on the TA-16 flash pad) prior to the burn.

Notification and documentation of open burns, continued

Notify NMED for open burns

For normal open burns at TA-11, TA-14, and TA-36, the burn permit requires that the NMED Enforcement Officer be notified at least 24 hours before the burn. This should be done at the time the logbook entry is made. **MAQ** notifies the NMED enforcement office by FAXing an Open Burn Notification Form (Attachment 3).

Notify NMED for burns at flash pad

For burns on the TA-16 flash pad, provide notification up to a week in advance but no less than 24 hours in advance of the burn activity. **MAQ** notifies the NMED enforcement office by FAXing an Open Burn Notification Form (Attachment 3).

Place records in logbook

When the Open Burn Notification Form has been faxed, put it in the FAX transmission activity sheet in the logbook under the heading for the burn.

Site access requirements

Before going to the TA-14 (Q-Site) burn cage, clearance (sign-in) must be obtained from the DX-2 Group Office at TA-9, Building 21, room 128.

To get to the TA-11 or TA-16 burn grounds, clear through the Explosives Area Badge Control Office in TA-8 Building 202.

Before going to TA-36, go to the DX-DO office at TA-8 to obtain clearance into R site area.

Complete observation form

Observations of the burn by Meteorology and Air Quality Group personnel are not required by the Air Quality Permit but are done whenever possible.

If the burn is observed, complete the lower part of the Open Burn Review and Observation Report (Attachment 4) to record pertinent information and any relevant comments during the burn. Insert this form into the logbook.

If the burn is NOT observed, indicate such on the lower part of the Open Burn Review and Observation Report (Attachment 4). Insert this form into the logbook.

Notification and documentation of open burns, continued

Record conducted burn

After the burn has been conducted, the operating group will send a FAX report of the burn, giving actual amounts disposed of and amounts of fuel used to initiate the burn. Place this FAX record into the log with the other paper records.

Ensure the following records are filed in the logbook (these four papers comprise the official legal description and record of the burn):

- Open Burn Notification Form (Attachment 3)
- FAX transmission activity sheet
- Open Burn Review and Observation Report (Attachment 4)
- Fax record of burn from operating group

Cancellation of a burn

It is not required by the permit to inform the NMED of a cancelled burn, but if that is not done, there is the possibility of later confusion as to the number of actual burns. When the burn is rescheduled, the NMED must again be notified, and this could cause a double count for that burn in their records. Document any cancellations in the logbook to help prevent future confusion.

Annual report of open burns

Annual report of burns

The Meteorology and Air Quality Group makes a report once yearly to the NMED for all permitted burn activities throughout the year. The permit requires only "annual" reporting – no date for the report is specified but should be submitted within 60 days after January 1.

Prepare report

Use the data in the open burn logbook to compile information for the past calendar year. Verify the information with the appropriate group that conducted the open burn operations.

No specific format for the letter is required; follow the previous year's report as a guide. Include the following information in the report :

- Burn location
- Burn type
- Burn date
- Fuel type
- Fuel quantity

Transmit report

Send the letter to the NMED Air Quality Bureau.

Send a copy of the report to the RRES-MAQ Records Coordinator.

Records resulting from this procedure

Records

The following records generated as a result of this procedure are to be entered into the Open Burn logbook (**NOTE**: logbooks are controlled according to requirements in MAQ-011):

- Entries in Open Burn Notification Log (Attachment 2)
- Open Burn Notification Form (Attachment 3)
- FAX transmission activity sheet
- Open Burn Review and Observation Report (Attachment 4)
- Fax record of burn from operating group

The following record generated as a result of this procedure is to be submitted **within two weeks of completion** to the Records Coordinator:

- Annual report to the NMED of open burns

HAZARD CONTROL PLAN

1. The work to be performed is described in this procedure.
"Documenting Open Burns"

2. Describe potential hazards associated with the work (use continuation page if needed).

Animal encounters (snakes, mountain lions, etc.)
Weather (cold, lightning, etc.)
Trips and falls.
High Explosives (TA-36, TA-16, TA-11, TA-14)

3. For each hazard, list the likelihood and severity, and the resulting initial risk level (before any work controls are applied, as determined according to LIR300-00-01, section 7.2)

Animal encounters -- critical / remote = minimal.
Weather -- catastrophic / remote = low.
Falls -- critical/improbable = low
Tripping -- moderate/ occassional = low.
Entry into High Explosives testing Areas -- Critical/Remote = Minimal (existing controls are stringent and not easily bypassed)

Overall initial risk: ☐ Minimal ☒ Low ☐ Medium ☐ High

4. Applicable Laboratory, facility, or activity operational requirements directly related to the work:
☒ None ☐ List: Work Permits required? ☒ No ☐ List:

HAZARD CONTROL PLAN, continued

5. Describe how the hazards listed above will be mitigated (e.g., safety equipment, administrative controls, etc.):

Animal encounters -- Employee Orientation includes training and awareness of animal hazards.
Weather -- Employee Orientation includes training and awareness of weather hazards.
Trips and falls -the new Employee Orientation includes training and awareness of tripping and falls.
Entry into High Explosives testing areas (existing controls are stringent and not easily bypassed) -- existing facility access controls include site specific training, sign-in/sign-out , and scheduling procedures.
Entry into posted Radiation/Controlled areas – (controls are stringent and not easily bypassed.)
TA-11, TA-14, TA-16, and TA-36 require entry through manned access control gates; self monitoring required before leaving areas.

6. Knowledge, skills, abilities, and training necessary to safely perform this work (check one or both):

☒ Group-level orientation (per MAQ-032) and training to this procedure.

☐ Other → See training prerequisites on procedure page 2. Any additional describe here:

Appropriate site-specific training, if needed for specific site visited.
CPR/First Aid training

7. Any wastes and/or residual materials? (check one) ☒ None ☐ List:

8. Considering the administrative and engineering controls to be used, the *residual* risk level (as determined according to LIR300-00-01, section 7.3.3) is (check one):

☒ Minimal ☐ Low ☐ Medium (requires approval by Division Director)

9. Emergency actions to take in event of control failures or abnormal operation (check one):

☐ None ☒ List:

For all injuries, provide first aid and see that injured person is taken to Occupation Medicine (only if immediate medical attention is not required) or the hospital. For any exposed, energized electrical wires, contact JCNNM or the appropriate authority to turn off the power. Follow all site specific emergency plans for any radiation or explosives emergencies.

Signature of preparer of this HCP: This HCP was prepared by a knowledgeable individual and reviewed in accordance with requirements in LIR 300-00-01 and LIR 300-00-02.

_____	_____	_____
Preparer(s) signature(s)	Name(s) (print) /Position	Date

Signature by group leader on procedure title page signifies authorization to perform work for personnel properly trained to this procedure. This authorization will be renewed annually and documented in ESH-17 records. Controlled copies are considered authorized. Work will be performed to controlled copies only. This plan and procedure will be revised according to MAQ-022 and distributed according to MAQ-030.

Meteorology and Air Quality Group

OPEN BURN NOTIFICATION LOG

This form is from MAQ-306

Permit no.

Date Notified		***Burn Date***	***Tech Area***	***Comments***
MAQ	*NMED*			

EXAMPLE

Meteorology and Air Quality Group

OPEN BURN NOTIFICATION FORM

This form is from MAQ-306

Los Alamos National Laboratory

RRES-MAQ

METEOROLOGY AND AIR QUALITY GROUP

P. O. Box 1663, Mail Stop J978
Los Alamos National Laboratory
Los Alamos, NM 87544

Phone: (505) 665-8855
Fax: (505) 665-8858

Memorandum

DATE: _____

TO: ***New Mexico Environment Department***
Air Quality Bureau
Phone Number: (505) 827-1494
Fax Number: (505) 827-1523

Attention: Enforcement Officer

EXAMPLE

SUBJECT: OPEN BURN NOTIFICATION

FROM: _____

Technical Area: _____ ***Operation:*** _____

Proposed Burn Date: _____

Comments:_____
_____
_____
_____
_____
_____
_____

For further information please call the Meteorology and Air Quality Group at 505-665-1240.

Meteorology and Air Quality Group

OPEN BURN REVIEW AND OBSERVATION REPORT

This form is from MAQ-306

Date:	**Person calling:**	**Group:**
Location of burn:	**Requested burn date:**	

Description of burn:

_____

_____

Notifications (person and date notified)

NMED:

On-Site preview

Check if present:

☐ ___ Hazardous chemicals / materials
☐ ___ Dirt and sand in fuel pile
☐ ___ Cans – trash
☐ ___ Visible explosive material

_____ _____ _____
Signature Name (print) Date

Comments:

_____

_____

_____

_____

_____

EXAMPLE

_____ _____ _____
Signature Name (print) Date

Observation of burn:

Comments on burn:

_____

_____

_____

_____

_____

_____

_____

_____ _____ _____
Signature Name (print) Date

Meteorology and Air Quality Group

OPEN BURN NOTIFICATION LOG

This form is from MAQ-306

Permit no.

Date Notified		***Burn Date***	***Tech Area***	***Comments***
MAQ	*NMED*			

Meteorology and Air Quality Group

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This form is from MAQ-306

Date:	**Person calling:**	**Group:**
Location of burn:	**Requested burn date:**	

Description of burn:

_____

_____

Notifications (person and date notified)

NMED:

On-Site preview

Check if present:

☐ ___ Hazardous chemicals / materials

☐ ___ Dirt and sand in fuel pile

☐ ___ Cans – trash

☐ ___ Visible explosive material

_____ _____ _____

Signature Name (print) Date

Pre-burn comments:

_____

_____

_____

_____

_____

_____

_____ _____ _____

Signature Name (print) Date

Observation of burn:

Comments on burn:

_____

_____

_____

_____

_____

_____

_____

_____ _____ _____

Signature Name (print) Date

Los Alamos National Laboratory

RRES-MAQ

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_____
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_____
_____
_____
_____
_____

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